

### **REMARKS**

Claims 46-76 are pending in this application. In this Response, Applicants have amended certain claims. In light of the Office Action, Applicants believe these amendments serve a useful clarification purpose, and are desirable for clarification purposes, independent of patentability. Accordingly, Applicants respectfully submit that the claim amendments do not limit the range of any permissible equivalents.

In particular, independent claims 46, 56, and 73 have been rewritten to further clarify that the outer cover is formed of a thermoset material that is cast onto the inner components of a golf ball. As no new matter has been added by the amendments herein, Applicants respectfully request entry of these amendments at this time.

### **Request to Withdraw Finality of Office Action**

Applicants respectfully request reconsideration and withdrawal of the finality of the present office action, pursuant to MPEP § 706.07(d). Under present practice, second or any subsequent Actions on the merits shall be final, except where the Examiner introduces a new ground of rejection that is neither necessitated by the Applicants' amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 C.F.R. 1.97(c) with the fee set forth in 37 C.F.R. 1.17(p). See MPEP § 706.07(a).

Here, the single reference submitted in a January 15, 2003 Information Disclosure Statement filed after receiving and responding to the August 12, 2002 Office Action was not used as grounds for rejection in the present office action. In addition, when Applicants submitted a response to the August 12, 2002 non-final Office Action on January 10, 2003, pending claims 46-55 were not amended, yet the Examiner introduced a new ground of rejection based on newly cited references.

As stated in MPEP § 706.07(a), "a second or any subsequent action . . . will not be made final if it includes a rejection, on newly cited art . . . of any claim not amended by applicant in spite of the fact that other claims may have been amended to require newly cited art." MPEP § 706.07(a). Here, the Examiner issued the present Final Office Action relying on newly cited art (U.S. Patent No. 5,006,297 to Brown) to reject all of the pending claims, including claims 46-55. Thus, the rejection of claims 46-55 based on Brown is a new ground of rejection not necessitated by the January 10, 2003 Response or the January 15, 2003 IDS.

For the reasons above, Applicants respectfully submit that the issuance of a final rejection as to claims 46-55 was improper. As such, Applicants respectfully request

reconsideration and withdrawal of the finality of the present Office Action. Because the application is still pending, withdrawal of the finality of the rejection is proper. See MPEP § 706.07(d).

### **Brief Description of the Present Invention**

In general, the present invention is directed to a golf ball having a dual core and a double cover construction. In particular, the double cover is formed from a cast thermoset outer cover that is softer than the inner cover. The casting method, disclosed in U.S. Patent No. 5,733,428 to Calabria *et al.*, which is incorporated by reference into the '172 patent, is described as the process of pouring the liquid castable material into the open mold and allowing it to continue polymerizing into a solid form after the mold is closed. *See* Calabria '428 at Col. 3, lines 7-10. Once a thermoset material is cast, no further processing is available because the cured / crosslinked material cannot be softened with heat. Applicants submit herewith a Declaration of Shenshen Wu Under 37 C.F.R. § 1.132 ("the Wu Declaration") to clarify the molding process in the secondary reference cited (Brown) at the time of the invention. In particular, the process described by Brown involves molding a smooth layer of thermoplastic material, which is then subjected to compression molding to impart dimples into the surface.

Thus, claims 46, 56, and new independent claim 73 recite a method for forming a dual core ball with an inner cover and a dimpled thermoset outer cover cast thereon. As explained in more detail below, the cited references do not disclose or even suggest a method of forming a golf ball by casting a dimpled thermoset outer cover.

### **THE REJECTIONS UNDER 35 USC § 103**

Claims 46-55, 56-72, and 73-76 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,779,562 to Melvin in view of U.S. Patent No. 5,006,297 to Brown for the reasons provided on pages 2-6 of the Office Action.

The Examiner principally relies upon Melvin, but acknowledges that Melvin does not disclose all of the features recited in the claims. In particular, the Examiner states that Melvin lacks any teaching regarding casting an outer cover layer. *See* Office Action at 2. As such, Melvin would not have motivated one of ordinary skill in the art to arrive at the presently claimed invention without the use of improper hindsight.

In an attempt to remedy the deficiencies of Melvin, the Examiner now relies on Brown to state that it would have been obvious to cast an outer cover around the Melvin golf

ball. Brown, however, teaches a two-step molding process that requires using thermoplastic cover materials. For example, Brown requires an initial cover molding step that involves introducing urethane into open smooth-walled mold halves and, after the urethane partially cures, a core is placed into one of the mold cups and the mold is closed. Col. 2, lines 35-50. The resulting smooth-surfaced golf ball product is then subjected to a second molding step involving the use of heat and pressure to overmold a dimple pattern into the smooth surface. Col. 3, lines 50-56. Thus, a final golf ball product with a dimple pattern on the cover results only after the originally molded urethane is reheated and subjected to a negative dimple pattern mold.

Because the material used in Brown must be softened upon application of heat, those of ordinary skill in the art are aware that the material used in Brown must be a thermoplastic material with no crosslinks therein. In contrast, all of the independent claims in the present invention are directed to casting a dimpled thermoset outer cover. Skilled artisans are aware of the many differences between thermoplastic and thermoset materials, one of which being that thermoset materials cannot be softened upon heating. Thus, the two-step molding process taught by Brown is not applicable to the presently claimed thermoset materials.

In further support of this position, the Wu Declaration and supporting documentation demonstrate that the molding process disclosed in the Brown, of which Wu is a co-inventor, is limited to thermoplastic cover materials. In fact, because formed thermoset polymers cannot be milled or molded under heat, a thermoset material, as presently claimed, could not be cast into the '297 patent's smooth-surfaced golf ball product and then later compression molded to provide a dimpled golf ball product.

Simply stated, the thermoset materials disclosed in Melvin cannot be used in the two-step molding process described in Brown. As a result, a skilled artisan would not have been motivated to use the thermoset materials disclosed in Melvin for Brown's two-step molding process. And, even if one were to attempt to use the thermoset materials of Melvin in Brown's two-step molding process, the presently claimed invention would not result. At best, the resultant golf ball product would be a smooth-surfaced golf ball product. One the smooth layer is molded onto the ball as instructed by Brown, no dimples could be overmolded into the smooth surface by the second compression molding step because the thermoset material could not be softened upon application of heat and pressure.

In light of the remarks above, Applicants respectfully submit that the obviousness rejections have been overcome. Applicants therefore respectfully request reconsideration and withdrawal of the rejections.

### CONCLUSION

Applicants believe that all of the pending claims are in condition for allowance. If the Examiner believes that this response does not resolve all of the issues regarding patentability of the pending claims, Applicants invite the Examiner to contact the undersigned attorneys to discuss any remaining issues.

Applicants submit herewith an Information Disclosure Statement, with requisite fee, to introduce the informational reference discussed in the Declaration. No other fees are believed to be due at this time. Should any fee be required, however, please charge such fee to Swidler Berlin Shereff Friedman, LLP Deposit Account No. 195127, Order No. 20002.0052.

Respectfully submitted,  
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